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09/680,206	10/06/2000	Christian Benz	387778.0107	8643

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EXAMINER

HESS, DANIEL A

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 09/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/680,206

Applicant(s)

BENZ ET AL.

Examiner

Daniel A Hess

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

1. Receipt is acknowledged of amendment filed August 27, 2002.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Berner (US 5,519,210), cited by the applicant.

Berner teaches a device for automatically measuring photometric data on a page-like or strip-like print having all of the elements and means as recited in claims 1 and 2 drawn to the device. For example, Berner shows the following:

Regarding claim 1, There shown (figure 1) a housing 1 having an 'intake slot' 3 (column 5, line 58). There is (figure 1, 33-36 and 61-62) a transport structure for transporting the sheet along transport path T (column 8, line 66 to column 9, line 15). There is a detecting means, shown in figure 2. A reflectance measuring lens 41, a light source 42, a photoelectric receiver 44, and a signal amplifier 45 are involved (column 4, lines 44-56). Spectral (color) data is obtained (column 5, 17-28). This data is converted to electrical signals (column 5, line 15). It is inherent that Berner includes controller of some kind to control a system having automatic transport, evaluation, and communication with an outside system. An evaluation unit 16 (see

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figure 2; column 5, line 16) is present. There is (abstract lines 11-12; column 3, line 33) automatic transport of the strips or sheets. Further, there is (column 5, lines 45-55) external communication with an outside system. There is further a densitometer (column 1, line 43) taking measurements in red, green and blue (column 3, line 30-35; column 1, lines 47-51). There are (column 3, line 16) electrical signals produced representing the data. A view of figure 1 makes clear that there is both a reflectance measuring lens 41 above the sample (column 4, line 48) and a transmission measuring lens 51 below the sample (column 5, line 14). The examiner did bring the applicant's attention to figure 1 in the earlier action.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

2. A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 3, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berner.

The teachings of Berner as applied to claims 1 is discussed above.

Re claims 3 and 4: Berner shows (column 1, line 60) an adjustment structure for manually moving the strip in a transverse manner, thus achieving transverse motion relative to the densitometric and spectral measurement systems. This is done in order to achieve greater scanned area.

Berner fails to show automatic transverse motion of the densitometric and spectral measurement systems.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the densitometric and spectral measurement systems operate in a transverse direction because, as Berner notes (column 1, line 64) the manual method involves skill and patience and is therefore somewhat inconvenient and automatic movement of the sheets themselves carries a jamming risk, as sheets that are moved about can get stuck in various places. Moving the reading systems instead allows a simpler scan travel path.

Re claim 6: The densitometer of Berner is capable of performing transmission measurements (column 1, lines 42-45).

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berner in view of Senn et al. (US 6,338,030).

Berner shows, as discussed above, that automatic transverse motion of sensing components is desirable. Berners further has (column 5, lines 7-15) a light source 42 that is used by the transmission measuring unit (figure 1, item 5). The light source shines light through the transparent original.

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Berner fails to show spectral and transmission measurements occurring through the same unit.

Senn shows (column 2, line 65 to column 3, line 6) a single measuring unit that performs both transmission and spectral measurements.

In view of Senn, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have spectral and transmission measurements occurring in the same unit as taught by Senn because combining both sensing means in a single sensing device produces significant cost savings.

6. Claims 7-11, 25 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berner in view of Cargill et al. (US 5,118,183).

Re claim 7: Berner fails to show a white reference area. Cargill shows (column 6, line 35) a white reference patch. That patch can be used for calibration (column 6, lines 25-45).

In view of Cargill's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known white reference field for the purpose of calibration because it is desirable to have a standard densitometric reading to compare against.

Re claims 8, 9, 25 and 28: Berner fails to show automatic codifying of different types of strips, storage of those codes in the controller, or selection of configuration modes based on this data.

Cargill shows (column 32, lines 44-59) that there is automatic storage of different types of test strips.

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In view of Cargill's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include codifying of different types of strips and storage of those codes in the controller, and selection of configuration modes based on this data in the teaching of Berner because if the user manually enters the wrong code by mistake, improper reading of the test strips can result and errors can thereby be introduced into film processing. Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form this codification through color fields because equipment is already in place to read color data, and this method would therefore be cost-effective.

Re claims 11 and 26: Berner fails to show a barcode on the test strip, or a bar-code reader in the testing device.

Cargill shows (column 38, lines 9-25) a bar coding scheme on the test strip. To read this, the reader device must have a bar code reader. Since the system is automated, it must interact with the controller.

It is well known that barcodes are used to perform machine reading for product identification.

In view of Cargill's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known barcode on the strips and barcode reader as part of the reader device as taught by Cargill in the teachings of Berner, using the barcode as an identification means because if the user manually enters the wrong code by mistake, improper reading of the test strips can result and errors can thereby be introduced into film processing.

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7. Claims 10 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berner as modified by Cargill, and further in view of Hayduchok et al (US 6,151,422). Berner as modified by Cargill has been discussed above.

Berner as modified by Cargill fails to show means for reading from test strips positioning data, or test strips containing such positioning data.

Hayduchok shows (abstract, lines 1-3) optical means for identifying the relative orientation of documents. Reference areas, symmetrically located on the document, are 'inspected for the presence of a preselected reference mark' (abstract, lines 10-12).

In view of Hayduchok's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known positioning code on automatically scanned documents and using this code to determine document orientation as taught by Hayduchok in the teachings of Berner as modified by Cargill because, orientation of an encoded test strip is crucial for determining how the strip should be scanned and data subsequently analyzed.

8. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berner in view of Gardner (US 5,929,413).

Re claims 12 and 13: Berner fails to show a U-shaped transport path.

Gardner shows (figure 1) a console where all user interaction takes place on the same side, so the user does not have to walk during interaction with the console.

In view of Gardner's teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known single-side user

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interaction as taught by Gardner in the teachings of Berner because a user standing on one side to feed in originals may not want to walk to the other side to retrieve them. A U-shape to have the originals curve back to where the user is standing increases convenience.

Re claim 14: Some users may want originals returned directly to them as taught by Gardner while others may want the originals sent to an opposite side as taught by Berner, leading to disposal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include user choice of transport path.

9. Claims 15-16, 18 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berner in view of Peterson et al. (US 5,402,361).

Re claims 15 and 18: Berner fails to show bi-directional communication with an external computer in a serial manner, transfer of digital measuring data to the external computer, or configuration of the device through the external computer.

Peterson shows (column 26, line 38) bi-directional communication with an external system. It is done for the sake of quality control, such that data is sent to an external computer and controlling commands are sent in response (column 27, lines 37-56). Peterson shows serial transmission (column 11, line 35). Peterson also shows (column 26, lines 22-39) modem means for communication with an external controlling system.

In view of Peterson's teaching's, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known serial or modem-based bi-directional communication with an external computer in a serial manner, transfer of digital measuring data to the external computer, and configuration of the device through the external computer as taught by Peterson in the teachings of Berner because this configuration

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allows control by complex software running on a powerful full-scale computer, which generally has more processing capability than a microcontroller.

Re claim 16: See claims 15 and 18. USB is an alternative but equivalent means to the serial communication with an external computer of claim 15.

Re claims 21 and 22: See claims 15 and 18. Email attachments are simply one of a variety of equivalent communications means across a network. The specific mode of network communication is not essential to the operation of the device.

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berner in view of Peterson and Senn. The teachings of Berner as modified by Peterson have been discussed above.

Peterson fails to specifically show a network interface.

Senn shows (column 3, line 57 to column 4, line 6) a network interface means for interacting with an external processor. Thus, a network interface is an alternative but equivalent means to the serial communication with an external computer of claim 15.

11. Claims 19 and 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berner as modified by Peterson and Senn, in view of Hu (US 6,301,104). The teachings of Berner as modified by Peterson and Senn have been discussed above.

Berner as modified by Peterson and Senn fails to show a means for modular connection between the network interface and controller.

Hu shows (figure 1; title; abstract) a motherboard that can act as a modular connection between a network interface and a controller (existing motherboard / computer configuration).

In view of Hu's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known means of forming a modular

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connection between a network interface and a controller as taught by Hu in the teachings of Berner as modified by Peterson and Senn because a modular means for connection between a network interface and a controller reduces and simplifies production. Similarly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute a modem for the network interface because for the purposes of reasonably sized data transfer it is an alternative but equivalent means of connecting to an external computer.

12. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berner as modified by Peterson in view of Motamed (US 6,327,047). The teachings of Berner as modified by Peterson have been discussed above.

Berner as modified by Peterson fails to make mention of the IT8 format.

Motamed (column 1, lines 35-40) shows that the IT8 format is a standard format for this type of digital measuring data in the art.

In view of Motamed, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known IT8 format as taught by Motamed in the teachings of Berner as modified by Peterson because using an industry-standard file format increases compatibility with products produced by other firms.

Response to Arguments

13. Applicant's arguments filed August 27 have been fully considered but they are not persuasive.

Re claim 1: The applicant argues that Berner '210 shows merely 'a single measurement arrangement' and does not teach spectral and densitometric measurements both. The examiner

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disagrees. A view of figure 1 makes clear that there is both a reflectance measuring lens 41 above the sample (column 4, line 48) and a transmission measuring lens 51 below the sample (column 5, line 14). Each of these separately is a full detector, each separately measuring spectral properties. The reflectance measurement apparatus (column 5, line 18-28) measures light spectrally, and the transmittance apparatus is (column 5, lines 4-8) 'very similar' to the reflectance measuring system (since this is the case the reflectance measurement apparatus is given as an example). The applicant argues also that Berner fails to provide measurement data for very dense originals. Note in the abstract (line 5) that Berner refers to the ability to analyze 'opaque test strips.' The examiner did bring the applicant's attention to figure 1 in the earlier action, which clearly shows detection both above and below the sample. Further the examiner referred to column 1, line 43, which if the sentence is fully read indicates both reflectance and transmission measurements, one of which has to be detected on one side of the sample, and the other which must be detected on the other side. While this is not in the description portion, it still refers to the 'general type of apparatus' (column 1, line 41) into which Berner is categorized.

Re claim 5: As claimed the applicant has that the 'spectral measurement arrangement also performs transmission measurements.' Senn allows for this possibility when he says (column 2, line 65 to column 3, line 6) that examples of measurements include spectral emission or transmission and uses (column 3, line 1) the plural parameters which implies multiple parameters such as both emission and transmission.

The examiner points out further that this actually could have been a 102b rejection since Berner shows (column 5, lines 4-8) that there is transmission measurement very similar to

reflectance measurement and that the reflectance measurement, by example, has spectral measurement (column 5, lines 18-28).

Re claims 25, 27 and 28: The examiner acknowledges that the codification of Cargill does not specify the type of strip. However, the Cargill has two important aspects, namely (a) there is codification, and (b) there is identification of different test strips. These two aspects are combined, i.e. it would have been obvious to use (a) codification when engaging in (b) the identification test strips. The applicant is arguing that there isn't codification of the identifying information shown, but merely codification of other information. If there were codification of ID information, the rejection would have been under 35 U.S.C 102. In essence the applicant is arguing against the validity of a USC 102 rejection, which was not made.

14. All other claims: All other arguments are made based on dependencies to other claims that the applicant believes were traversed. Since the examiner disagrees, the various secondary references need not remedy any deficiencies which result from these dependencies.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

16. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A Hess whose telephone number is (703) 305-3841. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.

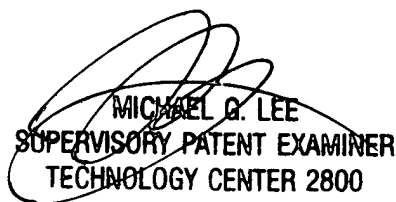
18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G Lee can be reached on (703) 305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

19. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



DH
September 20, 2002

Daniel A Hess
Examiner
Art Unit 2876



MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800